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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/705,572	11/03/2000	Hsin-Pang Wang	RD-28,281	6670
6147	7590	04/04/2005	EXAMINER	
GENERAL ELECTRIC COMPANY GLOBAL RESEARCH PATENT DOCKET RM. BLDG. K1-4A59 NISKAYUNA, NY 12309			ORTIZ RODRIGUEZ, CARLOS R	
			ART UNIT	PAPER NUMBER
			2125	

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/705,572

Applicant(s)

WANG ET AL.

Examiner

Carlos Ortiz-Rodriguez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9,10,12-39 and 41-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9,10,12,29-39 and 41-45 is/are rejected.
- 7) ☒ Claim(s) 13-28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 1/13/05 have been fully considered. Applicant's argument regarding the rejection under 35 USC 101 on claims 34 and 45, applicant states: "This computer generated prediction accomplishes a practical application in that it reduces the trial and error involved in the fabrication of molded articles" (see Arguments "Rejection under 35 USC 101" filed 1/13/05). It should be noted that the term "computer generated prediction" does not appear in either claim. Claims 34 and 45 should be amended in order to overcome the rejection under 35 USC 101 (for example, "A computer generated prediction method..."). It should also be noted that Arguments filed 1/13/05 address claims 34 and 35 as rejected under 35 USC 101 but does not address claim 45. A proper response is requested.

Claim Objections

2. Claim 13 objected to because of the following informalities: A period is missing at the end of the claim. Appropriate correction is required.

3. Claims 13-28 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 34 and 45 are directed to non-statutory subject matter. It should be noted that claims 34 and 45 are interpreted to be computer programs. Description or expressions of a program are not physical “things”. The descriptive material is not recorded on some computer-readable medium.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-7, 9-10, 12, and 29-39 and 41-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coe et al. U.S Patent No. 5,136,497 in view of Wayne et al. U.S. Patent No. 5,377,116.

Regarding claims 1, 12, 29-34 and 38-39 and 41-45 Coe et al. discloses a simulation system for generating a predicted performance for fabricated parts comprising: a computer (C8 L63-65) coupled to a database (storage/memory) for computing part performance predictions for

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a respective material with a predetermined geometry (C6 L12-20 and C17 L10-14) under predetermined processing conditions (C6 L20-24 and L38-41); and a mechanical degradation database for storing a plurality of mechanical degradation data for associated materials (C11 L55-67 and C12 L1-22).

Although Coe et al. discloses storing data regarding the deformation and flow of materials, Coe et al. (C12 L20-24) does not clearly specify rheological degradation data.

However, Wayne et al. discloses rheological degradation database for storing a plurality of rheological degradation data for associated materials (C5 L1-30).

Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the above invention suggested by Coe et al. and combining it with the invention disclosed by Wayne et al. The results of this combination would lead to performance predictor for fabricated parts.

One of ordinary skill in the art would have been motivated to do this modification because it is well known in the art to create rheological degradation databases to simplify the analysis and tool design, as suggested by Wayne et al.

Regarding claims 2-4 and 37 Coe et al. in combination with Davidson disclose all the limitations of the base claims. Coe et al. in combination with Davidson further disclose a simulation system wherein said materials are selected from the group consisting of polymer, metal and ceramic (Coe et al. C5 L34-38).

Regarding claims 5 Coe et al. in combination with Davidson disclose all the limitations of the base claim. Coe et al. in combination with Davidson further discloses a simulation system wherein a part geometry of an object to be fabricated is imported into said computer (Coe et al. C17 L3-16).

Regarding claims 6 and 36 Coe et al. in combination with Davidson disclose all the limitations of the base claims. Coe et al. in combination with Davidson further discloses a simulation system wherein said process conditions include filling time, mold temperature and melt temperature (Coe et al. C8 L55-66 and C1 L60-65).

Regarding claims 7 and 35 Coe et al. in combination with Davidson disclose all the limitations of the base claims. Coe et al. in combination with Davidson further discloses a simulation system wherein said part geometry imported into said computer entails generating a CAD part model of a three-dimensional object and discretizing the part model (Coe et al. C6 L1-4 and C12 L37-47).

Regarding claims 9 and 10 Coe et al. in combination with Davidson disclose all the limitations of the base claims. Coe et al. in combination with Davidson further discloses a simulation system wherein the three-dimensional model is discretized by enveloping the model with a finite element mesh (Coe et al. C12 L37-47 and C11 L17-26).

Conclusion

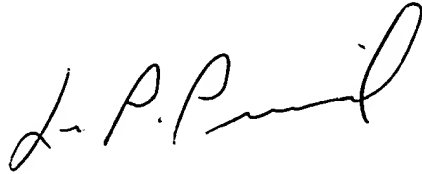
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Ortiz-Rodriguez whose telephone number is (571) 272-3747. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The central official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P Picard can be reached on (703)308-0538. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Carlos Ortiz-Rodriguez
Patent Examiner
Art Unit 2125

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

cror

March 31, 2005